

**AMENDMENTS TO THE CLAIMS:**

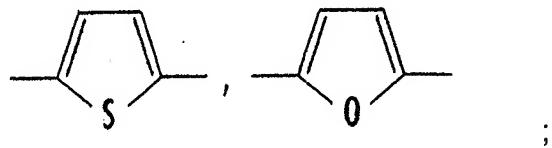
Please amend the claims to read as follows:

1. (Currently Amended) A fuel cell comprising a pair of electrode catalyst layers, each containing a catalyst supported by carbon particles and ion-conductive binder, and a polymer electrolyte membrane placed between the electrode catalyst layers, wherein the polymer electrolyte membrane is formed from a sulfonated polyarylene consisting of 0.5 to 100% by mol of a first repeating unit represented by the general formula (1) and 0 to 99.5% by mol of a second repeating unit represented by the general formula (2):

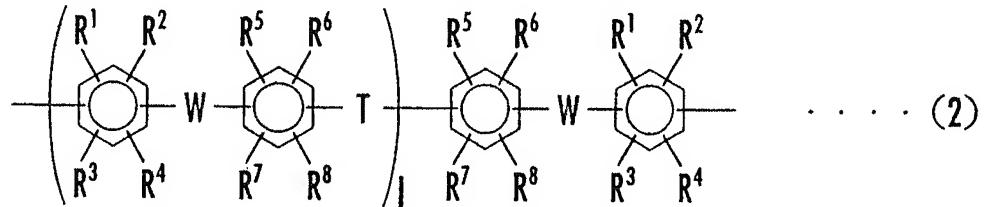


(wherein, A is a divalent organic group selected from the group consisting of groups such as -O-, -S-, -CH=CH-, -C≡C-, and -CO-, and electron donating groups represented by

by



and a benzene ring includes its derivative),



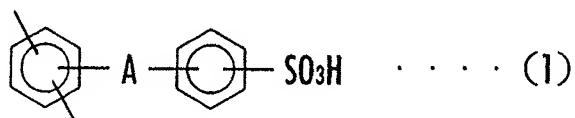
(wherein, -W- is a divalent electron attracting group; -T- is a divalent organic group; and R<sup>1</sup> to R<sup>8</sup> are a hydrogen atom or fluorine atom, an alkyl group, fluorine-substituted alkyl group, allyl group, aryl group or cyano group, and may be the same or different).

2. (Previously Presented) A fuel cell according to claim 1, wherein said electrode catalyst layer contains a noble metal catalyst at 0.1 to 1.0 mg/cm<sup>2</sup>, and said carbon particles have an average diameter of 10 to 100 nm.

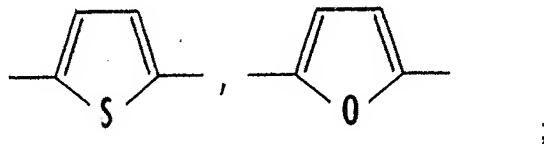
3. (Cancelled)

4. (Previously Presented) A fuel cell according to claim 1, wherein said electrode catalyst layers comprise an electrode diffusion layer.

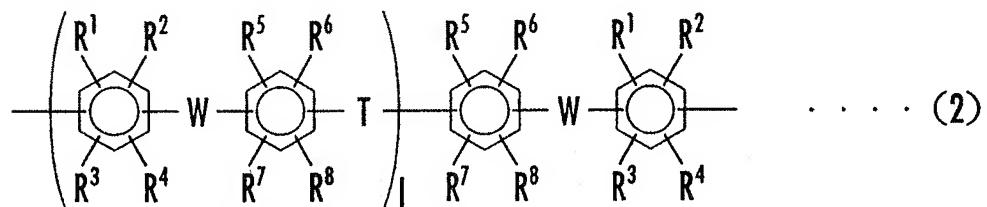
5. (Currently Amended) A polymer electrolyte fuel cell comprising an electrode structure for polymer electrolyte fuel cells, which comprises a pair of electrode catalyst layers, each containing a catalyst supported by carbon particles, and a polymer electrolyte membrane placed between these electrode catalyst layers, the polymer electrolyte membrane being formed by a sulfonated polyarylene as a copolymer consisting of 0.5 to 100% by mol of a first repeating unit represented by the general formula (1) and 0 to 99.5% by mol of a second repeating unit represented by the general formula (2):



(wherein, A is a divalent organic group selected from the group consisting of groups such as  $-\text{O}-$ ,  $-\text{S}-$ ,  $-\text{CH}=\text{CH}-$ ,  $-\text{C}\equiv\text{C}-$ , and  $-\text{CO}-$ , and electron donating groups represented by



and a benzene ring includes its derivative),



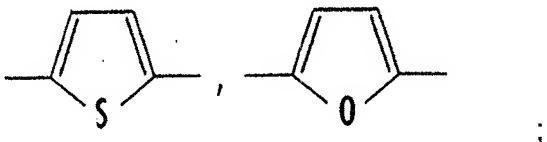
(wherein,  $-\text{W}-$  is a divalent electron attracting group;  $-\text{T}-$  is a divalent organic group; and  $\text{R}^1$  to  $\text{R}^8$  are a hydrogen atom or fluorine atom, an alkyl group, fluorine-substituted alkyl group, allyl group, aryl group or cyano group, and may be the same or different), wherein a fuel gas is supplied to one of the electrode catalyst layers and an oxidizing gas is supplied to the other electrode catalyst layer.

6. (Currently Amended) An electrical device which comprises a polymer electrolyte fuel cell comprising an electrode structure for polymer electrolyte fuel cells, which comprises a pair of electrode catalyst layers, each containing a catalyst supported by carbon particles, and a polymer electrolyte membrane placed between these electrode catalyst layers, the polymer electrolyte membrane being formed by of a sulfonated polyarylene as a copolymer onsisting of 0.5 to 100% by mol of a first repeating unit represented by the general formula (1) and 0 to 99.5% by mol of a second repeating

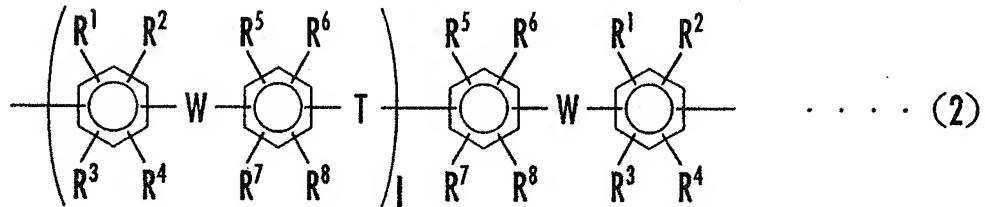
unit represented by the general formula (2):



(wherein, A is a divalent organic group selected from the group consisting of groups such as  $-O-$ ,  $-S-$ ,  $-CH=CH-$ ,  $-C\equiv C-$ , and  $-CO-$ , and electron donating groups represented by



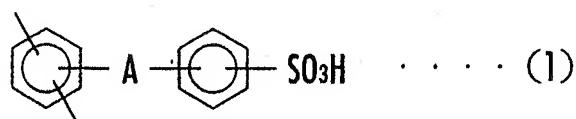
and a benzene ring includes its derivative),



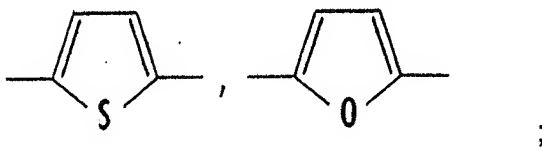
(wherein,  $-W-$  is a divalent electron attracting group;  $-T-$  is a divalent organic group; and  $R^1$  to  $R^8$  are a hydrogen atom or fluorine atom, an alkyl group, fluorine-substituted alkyl group, allyl group, aryl group or cyano group, and may be the same or different), and a fuel gas is supplied to one of the electrode catalyst layers and an oxidizing gas is supplied to the other electrode catalyst layer.

7. (Currently Amended) A transportation device which comprises a polymer electrolyte fuel cell comprising an electrode structure for polymer electrolyte fuel cells, which comprises a pair of electrode catalyst layers, each containing a catalyst

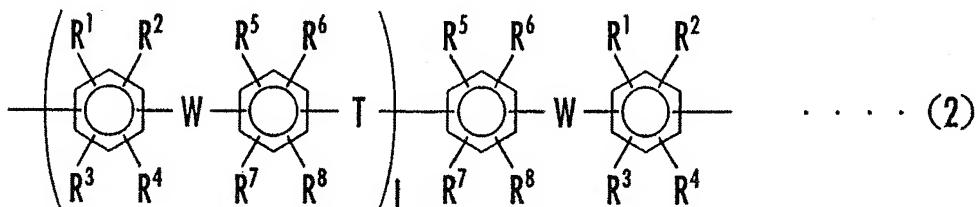
supported by carbon particles, and a polymer electrolyte membrane placed between these electrode catalyst layers, the polymer electrolyte membrane being formed by a sulfonated polyarylene as a copolymer composed of 0.5 to 100% by mol of a first repeating unit represented by the general formula (1) and 0 to 99.5% by mol of a second repeating unit represented by the general formula (2):



(wherein, A is a divalent organic group selected from the group consisting of groups such as  $-O-$ ,  $-S-$ ,  $-CH=CH-$ ,  $-C\equiv C-$ , and  $-CO-$ , and electron donating groups represented by



and a benzene ring includes its derivative),



(wherein,  $-W-$  is a divalent electron attracting group;  $-T-$  is a divalent organic group; and  $R^1$  to  $R^8$  are a hydrogen atom or fluorine atom, an alkyl group, fluorine-substituted alkyl group, allyl group, aryl group or cyano group, and may be the same or different), and a fuel gas is supplied to one of the electrode catalyst layers and an oxidizing gas is supplied to the other electrode catalyst layer.

8. (Previously Presented) The fuel cell of claim 1, wherein R<sup>1</sup> to R<sup>8</sup> are an aryl group or a cyano group, and may be the same or different.

9. (Previously Presented) The polymer electrolyte fuel cell of claim 5, wherein R<sup>1</sup> to R<sup>8</sup> are an aryl group or a cyano group, and may be the same or different.

10. (Previously Presented) The electrical device of claim 6, wherein R<sup>1</sup> to R<sup>8</sup> are an aryl group or a cyano group, and may be the same or different.

11. (Previously Presented) The transportation device of claim 7, wherein R<sup>1</sup> to R<sup>8</sup> are an aryl group or a cyano group, and may be the same or different.

12. (New) A fuel cell according to claim 1, wherein said polymer electrolyte membrane is composed of a sulfonated polyarylene represented by the general formula (3):

